

THERMAL MEASUREMENTS OF ELECTRONIC DEVICES DURING OPERATION

ABSTRACT OF THE INVENTION

A system and method for measuring thermal distributions of an electronic device during operation is disclosed. The system includes an electronic device, a heat sink adjacent to the electronic device and an electrical-insulating layer disposed on the electronic device so as to separate the electronic device and the heat sink. The system further includes a plurality of thermal sensors located on the electrical-insulating layer, each of the plurality of thermal sensors in a different location. The plurality of thermal sensors is located within one or more thin film circuit layers disposed adjacent to the electrical insulating layer. The system further includes a module for receiving thermal information from the plurality of thermal sensors during operation of the electronic device. The system further includes a processor coupled to the module for generating a thermal distribution of the electronic device based on the thermal information received from the plurality of thermal sensors.

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